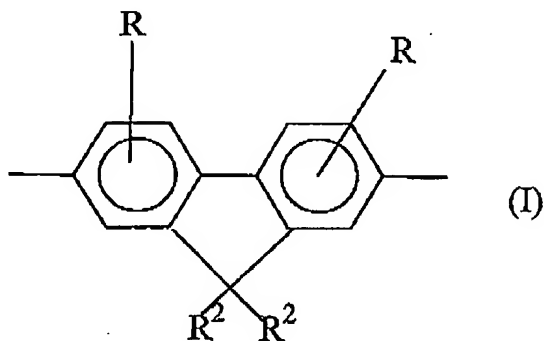


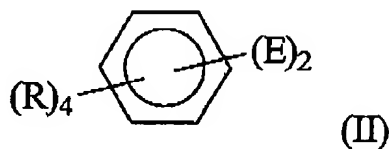
Application No. 10/816,160
Docket No. PE0669USDIV

Listing of Claims

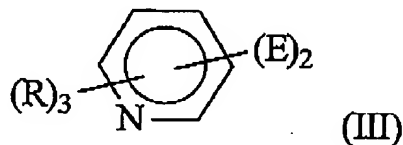
1. (Canceled)
2. (Currently Amended) A polymer comprising at least a first monomeric unit selected from (i) aromatic groups having a Formula I and at least one second monomeric unit selected from Formulae II through XI,



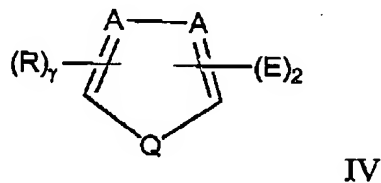
- (ii) aromatic groups having Formula II,



- (iii) 6-membered heteroaromatic groups having Formula III,

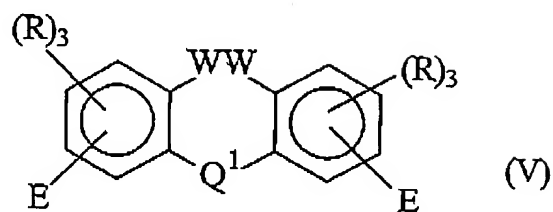


- (iv) 5-membered heteroaromatic groups having Formula IV,

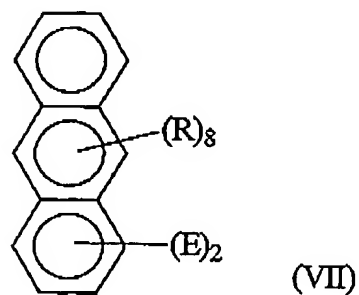
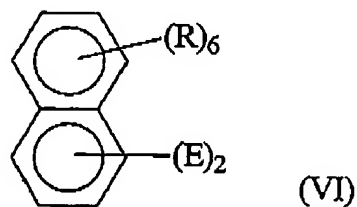


Application No. 10/816,160
Docket No. PE0669USDIV

(v) aromatic groups having Formula V,

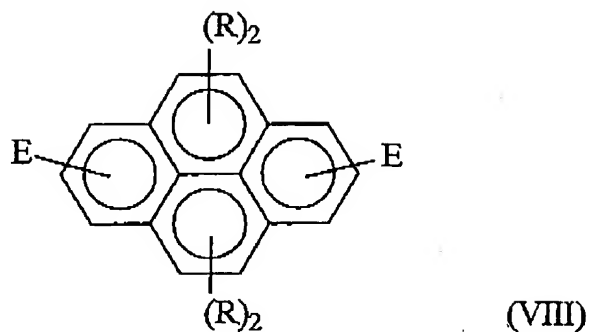


(vi) divalent fused ring aromatic groups having Formula VI through Formula VIII,

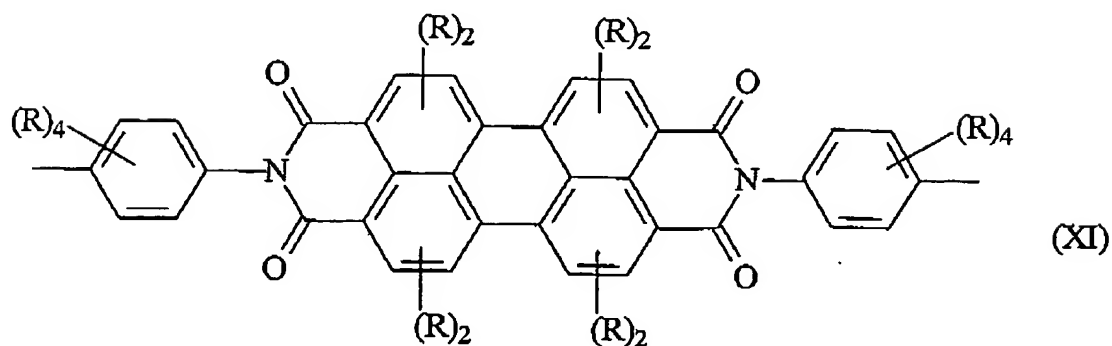
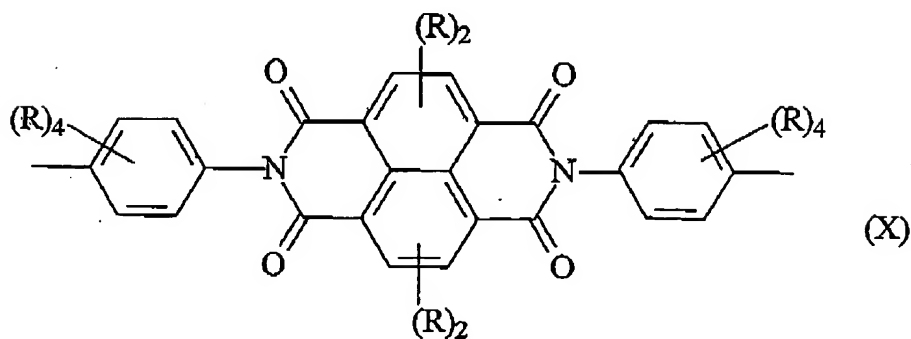
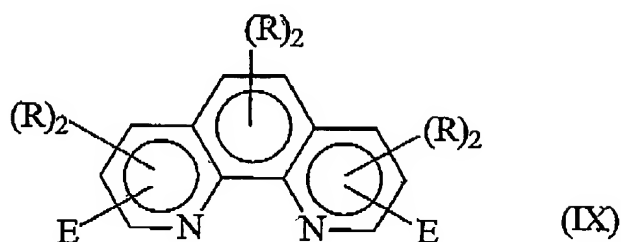


Application No. 10/816,160

Docket No. PE0669USDIV



and Formula IX through Formula XI,

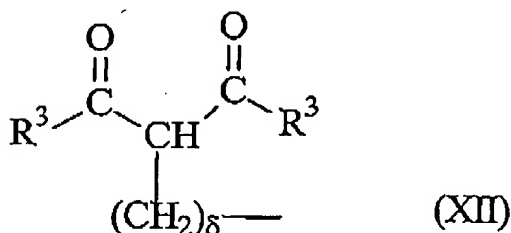


Application No. 10/816,160
Docket No. PE0669USDIV

and (vii) combinations thereof, where:

in each of Formulae I, II, III, IV, V, VI, VII, VIII, and IX:

R is a substituent on a carbon atom in an aromatic ring, which can be the same or different at each occurrence and is selected from hydrogen H, alkyl, aryl, heteroalkyl, heteroaryl, F, -CN, -OR¹, -CO₂R¹, -C_ψH_θF_λ, -OC_ψH_θF_λ, -SR¹, -N(R¹)₂, -P(R¹)₂, -SOR¹, -SO₂R¹, -NO₂, and beta-dicarbonyls having Formula XII shown in Figure 12; or



and optionally,

adjacent R groups together can form a ring selected from 5-membered cycloalkyl, 6-membered cycloalkyl, 5-membered aryl, 6-membered aryl, 5-membered heteroaryl and 6-membered heteroaryl, such that:

R¹ is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl; and

ψ is an integer between 1 and 20, and θ and λ are integers satisfying Equation A1 below:

$$\theta + \lambda = 2\psi + 1; \quad (\text{Equation A1});$$

R² is a substituent on a carbon atom not in an aromatic ring, which can be the same or different at each occurrence and is selected from hydrogen H, alkyl, aryl, heteroalkyl, heteroaryl and -C_ψH_θF_λ, with the proviso that the polymer contains at least one R substituent with the formula -C_ψF_{2ψ+1};

E can be the same or different at each occurrence and is a single bond or a linking group selected from arylene and heteroarylene;

Application No. 10/816,160
Docket No. PE0669USDIV

in Formula IV:

A is independently at each occurrence C or N and γ is 0 or an integer selected from 1 or 2, such that when both A are N, then γ is 0; or when one of A is N and one of A is C, then γ is 1; or when both A are C, then γ is 2;

Q is O, S, SO₂, or NR¹ where:

R¹ is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl;

in Formula V:

Q¹ is a carbonyl group, O, S, SO₂, or NR¹ where:

R¹ is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl;

W is H, alkyl or heteroalkyl; or both of W together can represent one single bond;

in Formula VI:

the two E's are in the 1,4-, 1,5-, 1,8-, 2,3-, or 2,6- positions;

in Formula VII:

the two E's are in the 1,4-, 1,5-, 1,8-, 2,3-, 2,6-, or 9,10- positions;

in Formula VIII:

a first E is in the 1, 2, or 3 position, a second E is in the 6, 7, or 8 position;

in Formula IX:

a first E is in the 2, 3, or 4 position; a second E is in the 7, 8, or 9 position; and

in Formula XII:

R³ is selected from hydrogen H, alkyl, aryl, heteroalkyl and heteroaryl;

δ is 0 or an integer from 1 to 12.

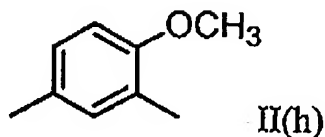
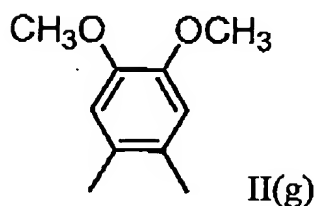
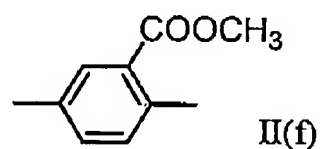
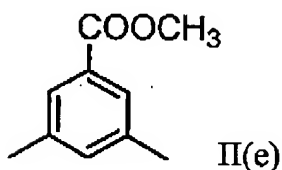
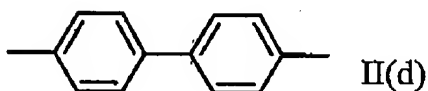
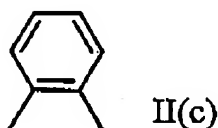
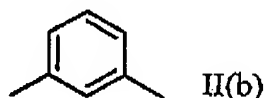
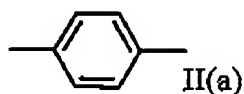
3. (Original) The copolymer of Claim 2 wherein the at least one of the R groups in one or more of the at least one first monomeric unit is independently selected from linear and branched butyl ~~n-butyl~~ groups; ~~linear and branched iso-butyl~~ groups; linear and branched pentyl groups; hexyl groups, and octyl groups with and without olefinic

Application No. 10/816,160
Docket No. PE0669USDIV

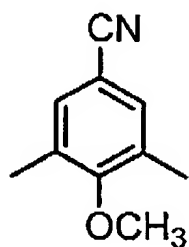
unsaturation; phenyl groups, thiophene groups, carbazole groups, alkoxy groups, phenoxy groups and cyano groups.

4. (Original) The copolymer of Claim 2 wherein at least one of the R groups in one or more of the at least one first monomeric unit are independently selected from H, C₆-C₁₂ alkoxy, phenoxy, C₆-C₁₂ alkyl, phenyl and cyano.

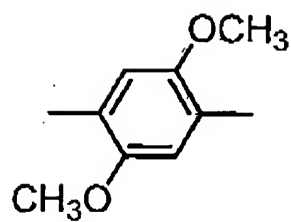
5. (Original) The copolymer of Claim 2 wherein one or more of the at least one second monomeric unit is selected from Formulae II(a) through II(z),



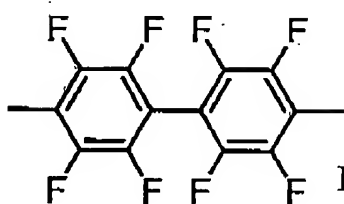
Application No. 10/816,160
Docket No. PE0669USDIV



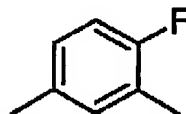
II(i)



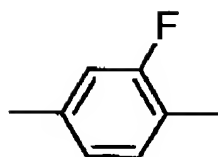
II(j)



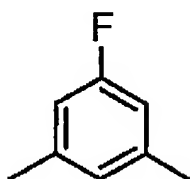
II(k)



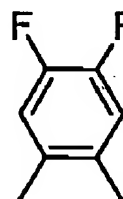
II(l)



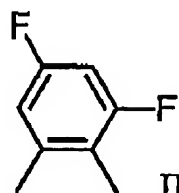
II(m)



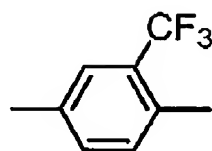
II(n)



II(o)

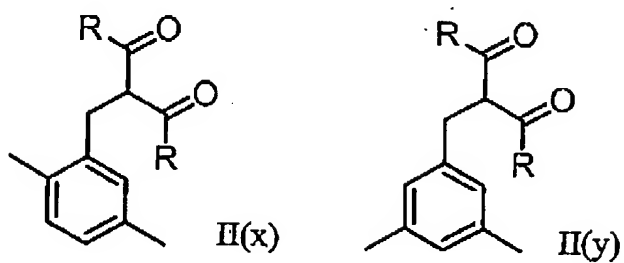
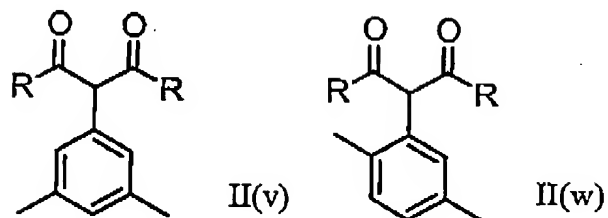
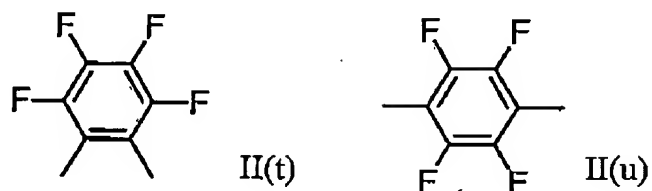
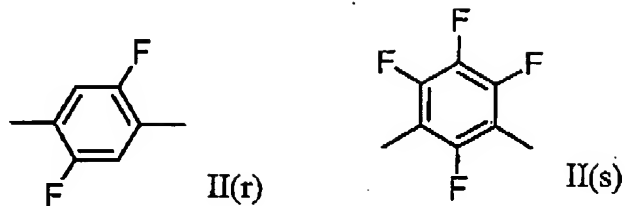


II(p)



II(q)

Application No. 10/816,160
Docket No. PE0669USDIV

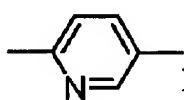


Application No. 10/816,160
Docket No. PE0669USDIV

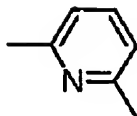


II(z)

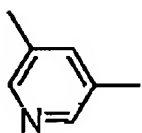
III(a) through III(g),



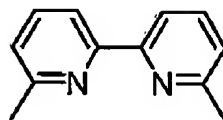
III(a)



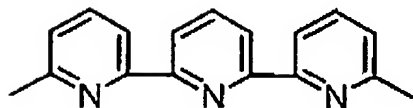
III(b)



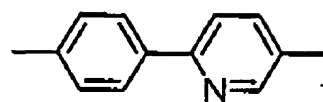
III(c)



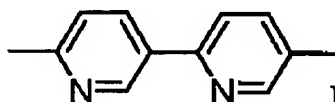
III(d)



III(e)



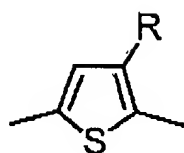
III(f)



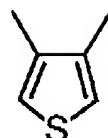
III(g)

IV(a) through IV(h),

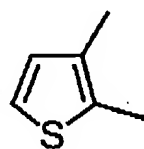
Application No. 10/816,160
Docket No. PE0669USDIV



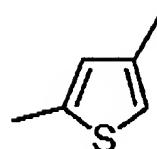
IV(a)



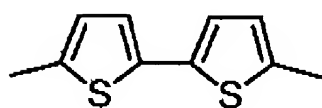
IV(b)



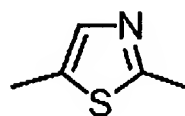
IV(c)



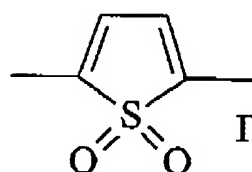
IV(d)



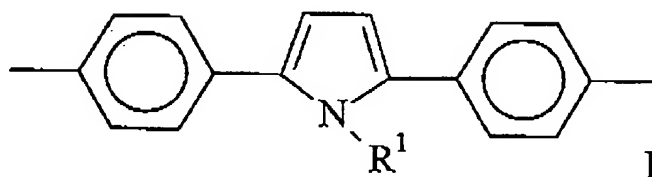
IV(e)



IV(f)

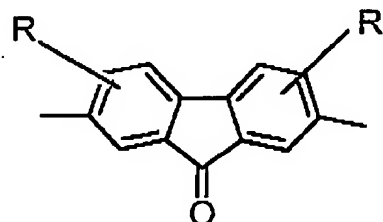


IV(g)



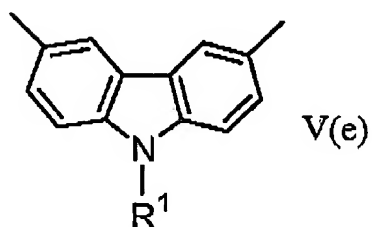
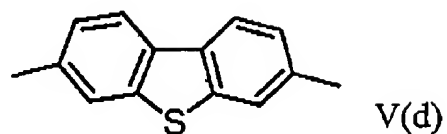
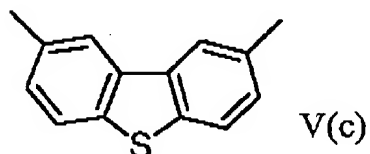
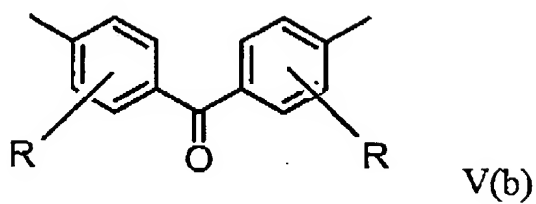
IV(h)

V(a) through V(e).

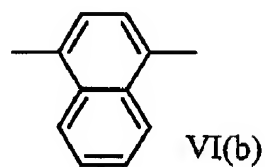
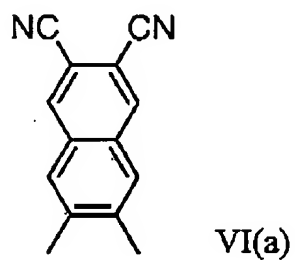


V(a)

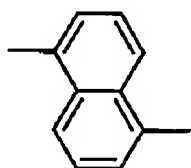
Application No. 10/816,160
Docket No. PE0669USDIV



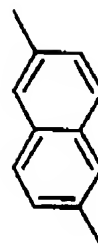
VI(a) through VI(d),



Application No. 10/816,160
Docket No. PE0669USDIV

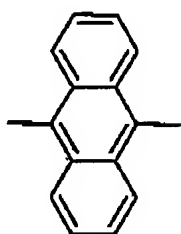


VI(c)



VI(d)

and VII(a) where:



VII(a)

in Formulae II(v) through II(y), IV(a), V(a), and V(b):

R is as described above for each of Formulae I, II, III, IV, V, VI, VII, VIII through XI;

in Formula IV(h):

R¹ is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl; and

in Formula V(e):

R¹ is a substituent on a heteroatom which can be the same or different at each occurrence and is selected from alkyl, aryl, heteroalkyl and heteroaryl.

6. (Currently Amended) The copolymer of Claim 2, wherein one or more of the at least one second monomeric unit has Formula II wherein R is selected from:

hydrogen H;

alkyl;

aryl;

heteroalkyl;

Application No. 10/816,160

Docket No. PE0669USDIV

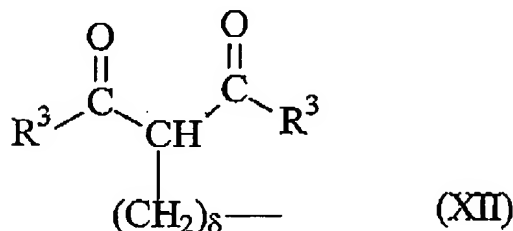
heteroaryl;

F;

-CN;

-NO₂;

a beta-dicarbonyl having Formula XII shown in Figure 12;

-C_ψH_θF_λ;-OC_ψH_θF_λ; and

-P(R¹)₂, -SOR¹, -OR¹, -CO₂R¹, -SR¹, -N(R¹)₂, and -SO₂R¹, where R¹ is a straight chain or branched alkyl of from 1 to 20 carbons or a straight chain or branched heteroalkyl.

7. (Currently Amended) The copolymer of Claim 2, wherein one or more of the at least one second monomeric unit has Formula II wherein R is selected from:

alkyl groups having from 1 to 12 carbon atoms;

partially or fully fluorinated alkyl groups having from 1 to 12 carbon atoms ;

especially CF₃ ;

aryl groups having from 6 to 20 carbon atoms;

heteroaryl groups having from 4 to 20 carbon atoms and substituted with O, S, or

N;

OR¹ alkoxy groups having from 1 to 12 carbon atoms; andCO²R¹ groups esters having from 3 to 15 carbon atoms.

8. (Original) The copolymer of Claim 2, where one or more of the at least one second monomeric unit has Formula III wherein:

R groups are selected from hydrogen H, C₆-C₁₂ alkyl groups, C₆-C₂₀ aryl groups, and C₂-C₂₀ heteroaryl groups; and

Application No. 10/816,160
Docket No. PE0669USDIV

E linking groups are selected from pyridinediyl (-C₅H₄N-) and bipyridinediyl (-C₅H₄N- C₅H₄N-).

9. (Original) The copolymer of Claim 2, wherein one or more of the at least one second monomeric unit has Formula IV wherein:

R groups are selected from H, C₆-C₁₂ alkyl groups, C₆-C₂₀ aryl groups, and C₂-C₂₀ heteroaryl groups; and

E linking groups include pyrrolediyl (-C₄H₃N-) and thiophenediyl (-C₄H₃S-).

10. (Original) The copolymer of Claim 2, wherein one or more of the at least one second monomeric unit has Formula V wherein:

R groups are selected from H, C₆-C₁₂ alkyl groups, C₆-C₂₀ aryl groups, and C₂-C₂₀ heteroaryl groups; and

the two W represent one single bond.

11. (Original) The copolymer of Claim 2, wherein one or more of the at least one second monomeric unit has one of Formulae VI through XI wherein:

R groups are selected from H, C₆-C₁₂ alkyl groups, C₆-C₂₀ aryl groups, and C₂-C₂₀ heteroaryl groups; and

in Formula VI:

the E's are in the 1,4-, 1,5-, 1,8-, 2,3-, or 2,6- positions;

in Formula VII:

the E's are in the 1,4-, 1,5-, 1,8-, 2,3-, 2,6-, or 9,10- positions.

12-13. (Canceled)

14. (Original) An electronic device comprising at least one electroactive layer comprising a polymer selected from the polymer of Claim 2.

15-20. (Canceled)